Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 3-37 are pending in the application, with claims 3, 14, 16, 32, 35 being the independent claims. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objections to the claims

Claims 1, 14, 16, and 32 stand objected to as being allegedly unclear. As discussed in the Examiner interview of March 16, 2005, the claim terms objected to have been explained. "Technology independent logic building blocks" refers to logic building blocks that are not dependent on a particular technology. "Predictable result" refers to an outcome that can be anticipated prior to gate-level implementation. "Creating a virtual prototype" refers to creating a simulated model. "Before detailed" refers to optimization which takes place before gate-level implementation. "Deriving a solution for design convergence" refers to deriving a solution for a working design. "Thereby providing a higher level of abstraction than gates" refers to providing information at a level that is higher than gate level.

Rejections under 35 U.S.C. § 102

Claims 3-37 stand rejected under 35 U.S.C. 102(e) as being allegedly unpatentable over U.S. Pat. No. 6,216,252 to Dangelo et al. ("Dangelo"). Applicant respectfully traverses.

Regarding claim 3 and as discussed in the Examiner interview on March 16, 2005, Dangelo neither teaches nor suggests, among other things, "optimizing a network of technology-independent logic building blocks logically and physically" or "using actual measurements taken from placed-and-routed physical implementations of logic structures to create a model of the electronic design" as claimed in claim 3. Dangelo instead uses building blocks called "mega-cells" which are not optimized (Dangelo, col. 12, lines 40-43, and col. 15, lines 60-62). Further, Dangelo uses statistical or estimated information rather than actual measurements (Dangelo, col. 8, lines 54-61, col. 11, lines 49-52, and col. 14, lines 3-11). For at least these reasons, Applicant respectfully submits that amended claim 3 is patentable over Dangelo. Reconsideration and withdrawal of the rejection of claim 3 is respectfully requested.

Claims 4-13 depend from claim 3, and are thus patentable over Dangelo for at least the reasons discussed with respect to claim 3. Additionally, claim 10 has been amended as discussed in the Examiner interview, to further clarify the claim. Reconsideration and withdrawal of the rejections of claims 4-13 are respectfully requested.

Regarding claim 14 and as discussed in the Examiner interview, Dangelo neither teaches nor suggests, among other things, "creating a virtual prototype using actual measurements taken from placed-and-routed physical implementations of logic structures" as claimed in claim 14. For at least these reasons, Applicant respectfully

submit that claim 14 is patentable over Dangelo. Reconsideration and withdrawal of the rejection of claim 14 is respectfully requested.

Claim 15 depends from claim 14, and is thus patentable over Dangelo for at least the reasons discussed with respect to claim 14. Reconsideration and withdrawal of the rejection of claim 15 is respectfully requested.

Regarding claim 16 and as discussed in the Examiner interview, Dangelo neither teaches nor suggests, among other things, "optimizing the network of logic building blocks, each logic building block having performance data based on actual measurements taken from placed and routed implementations of that logic building block" as claimed in claim 16. For at least these reasons, Applicant respectfully submits that claim 16 is patentable over Dangelo. Reconsideration and withdrawal of the rejection of claim 16 is respectfully requested.

Claims 17-31 depend from claim 16, and are thus patentable over Dangelo for at least the reasons discussed with respect to claim 16. Additionally, claim 24 has been amended as discussed in the Examiner interview to further clarify the claim. Reconsideration and withdrawal of the rejections of claims 17-31 are respectfully requested.

Regarding claim 32 and as discussed in the Examiner interview, Dangelo neither teaches nor suggests, among other things, "placing and routing physical implementations of a logic building block" or "monitoring area and performance data of each placed-and-routed physical implementation" as claimed in claim 32. For at least these reasons, Applicant respectfully submits that claim 32 is patentable over Dangelo. Reconsideration and withdrawal of the rejection of claim 32 is respectfully requested.

Claims 33 and 34 depend from claim 32 and are thus patentable for at least the reasons discussed with respect to claim 32. Reconsideration and withdrawal of the rejections of claims 33 and 34 are respectfully requested.

Regarding claim 35 and as discussed in the Examiner interview, Dangelo neither teaches nor suggests, among other things, logic structures "having performance data based on actual measurements of placed and routed implementations of that logic structure" or optimizing "using the actual measurements of placed and routed implementations" to create a model of the electronic design as claimed in claim 35. For at least these reasons, Applicant respectfully submits that clam 35 is patentable over Dangelo. Reconsideration and withdrawal of the rejection of claim 35 is respectfully requested.

Claims 36 and 37 depend from claim 35, and are thus patentable for at least the reasons discussed with respect to claim 35. Reconsideration and withdrawal of the rejections of claims 36 and 37 are respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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